

① Find the equation of the line passing through the points $(1,3)$ $(4,8)$.

② Find the equations of the lines parallel to and perpendicular to the line you found in #1 and passing through the point $(-2,4)$.

③ Solve for x and graph

$$\textcircled{a} \quad \begin{array}{r} 4+x > 17 \\ -4 \quad -4 \end{array}$$

$$x > 13$$



$$\textcircled{b} \quad \begin{array}{r} 5-2x \geq 11 \\ -5 \quad -5 \end{array}$$

$$\begin{array}{r} -2x \geq 6 \\ \frac{-2}{-2} \quad \frac{6}{-2} \end{array}$$

$$x \leq -3$$



$$\textcircled{c} \quad \begin{array}{r} |3x+4|-5 < 11 \\ +5 \quad +5 \end{array}$$

$$|3x+4| < 16$$

$$\begin{array}{r} 3x+4 < 16 \\ -4 \quad -4 \end{array}$$

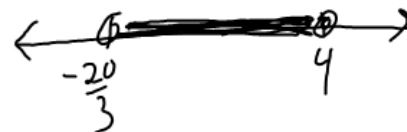
$$\frac{3x}{3} < \frac{12}{3}$$

$$x < 4$$

$$\begin{array}{r} 3x+4 > -16 \\ -4 \quad -4 \end{array}$$

$$\frac{3x}{3} > \frac{-20}{3}$$

$$x > \frac{-20}{3}$$



$$1. \quad y = \frac{5}{3}(x - 4) + 8$$

1,3 4,8

$$\begin{array}{r} 8 - 3 = \sqrt{5} \\ 4 - 1 \quad \sqrt{3} \end{array}$$

$$y = \frac{5}{3}x + \frac{4}{3}$$

1.33

$$\checkmark \frac{5}{3}(x+2)+4$$

$$2 \quad \uparrow \downarrow = \frac{5}{3}x + \frac{7}{3}$$

$$\downarrow = -\frac{3}{5}x + \frac{14}{5}$$

$$y = -\frac{3}{5}(x+2) + 4$$

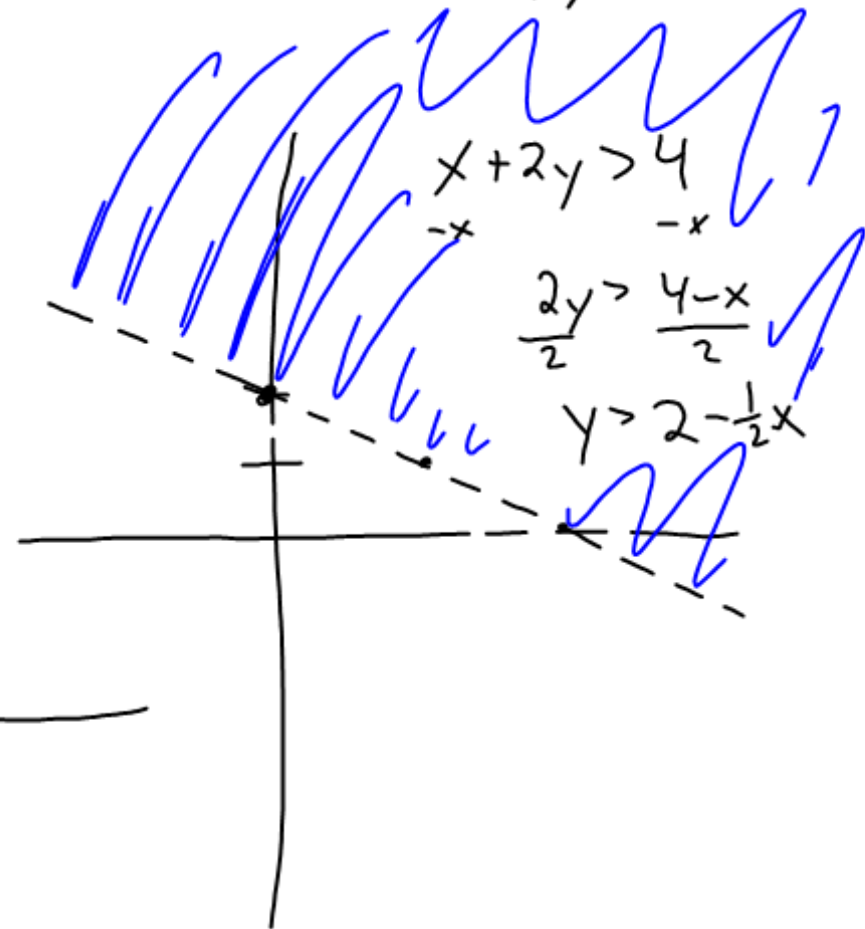
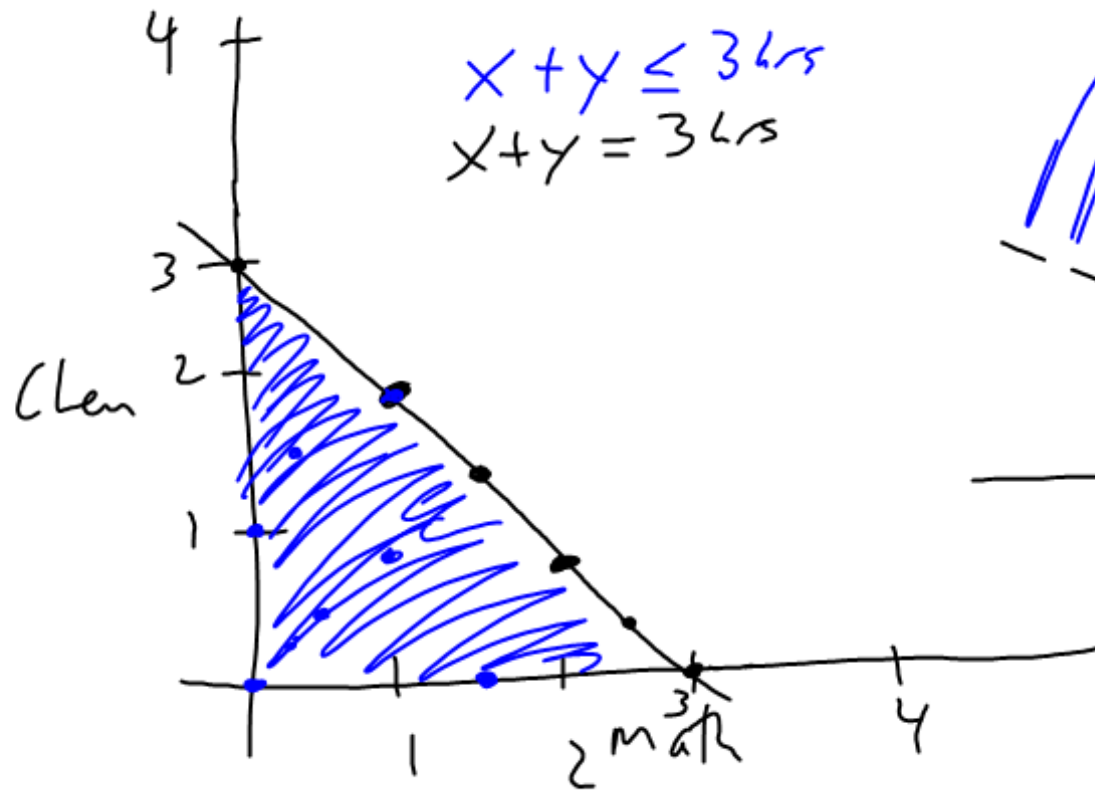
$$y = -\frac{3}{5}x - \frac{6}{5} + 4$$

$$y = -\frac{3}{5}x + \frac{14}{5}$$

Stu Dent

3 hrs. with HW math & chem.

(x) (y)



Garage Sale

CD's

Hippy hop & Blues each \$1.⁰⁰

made \$50



made less \$50

$$\frac{0-50}{50-0} = \frac{-50}{50} = -1$$

$$y = -1(x-0) + 50$$

$$y = -1x + 50$$



20. Nutrition The table below shows the relationship between Calories and fat in various fast-food hamburgers.

Hamburger	A	B	C	D	E	F	G	H	I
Calories	720	530	510	500	305	410	440	320	598
Fat (g)	46	30	27	26	13	20	25	13	26

SOURCE: *The Fat Counter*

- Develop a model for the relationship between Calories and fat.
- How much fat would you expect a 330-Calorie hamburger to have?
- Error Analysis** A student reports these estimates: 10 g of fat for a 200-Calorie hamburger and 36 g of fat for a 660-Calorie hamburger. Which estimate is *not* reasonable? Explain

a) $y = 0.07x - 9.27$ use LinReg.

b) $y = 0.07(330) - 9.27 \approx 13.8$ g fat

c) $y = 0.07(10) - 9.27 \approx 6$ ← doesn't fit expected 10g.
 $y = 0.07(660) - 9.27 \approx 36.8$

Sect. 2.7

#1-9, 23-28, 34, 36-38

To graph $x + 2y = 4$

$-x$ $-x$

$$\frac{2y}{2} = \frac{4-x}{2}$$

$$y = 2 - \frac{1}{2}x$$

\swarrow y -int \swarrow slope

